

Cartographic Body of Knowledge – work in progress

Terje Midtbø^{a,*}, Temenoujka Bandrova^b, Georg Gartner^c, Miljenko Lapaine^d, Liqiu Meng^e, Jie Shen^f, Vít Voženílek^g, Tao Wang^h

^a Geomatics group, Dept. of Civil and Environmental Engineering, Norwegian University of Science and Technology, Trondheim, Norway - terjem@ntnu.no

^b University of Architecture, Civil Engineering and Geodesy, Sofia – tbandrova@abv.bg

^c Technische Universität Wien, Department of Geodesy and Geoinformation – georg.gartner@tuwien.ac.at

^d University of Zagreb, Faculty of Geodesy – mlapaine@geof.hr

^e Technical University of Munich, Chair of Cartography and Visual Analytics - liqiu.meng@tum.de

^f Key Laboratory of Virtual Geographic Environment (Nanjing Normal University), Ministry of Education, Nanjing, Jiangsu 210023, China – 562972712@qq.com

^g Palacký University, Faculty of Science, Department of Geoinformatics, Olomouc, Czech Republic - vit.vozenilek@upol.cz

^h Geographic Information Science, Capital Normal University - wangt@cnu.edu.cn

* Corresponding author

Keywords: Body of knowledge, Cartography, Cartographic tools, BoK

Abstract:

Many people related to ICA have over the years been engaged in the creation of Cartographic Body of Knowledge (CartoBoK). Central persons as Lynn Usery, Georg Gartner, David Fairbairn and Harold Mollering (Fairbairn, 2018; Moellering, 2019) has been involved in this work in various occasions. There is also a section for Cartography and visualization in the GIS&T Body of Knowledge, established by the University Consortium for Geographic Information Science (GIS&T BoK, 2016).

Even if the GIS&T is quite comprehensive, none of these works are a complete body of knowledge for the field of Cartography. The present Executive Committee consequently decided to form a new Working Group for CartoBoK that should collect information from the wide specter of Cartographic knowledge within ICA. The various commissions were expected to be central in this work. The “first version” of the new Working Group was based on members from the current Executive Committee. Later this group has been extended, and the current members are the authors of this paper.

At the ICA Generally Assembly in Tokyo, 2019, a review and renewal of existing, central definitions within Cartography was requested, in particular the definition of “a map”. This task was assigned to the CartoBoK WG. A paper dealing with the suggested definitions was proposed at ICC in Florence (Lapaine et al., 2021).

During the study of other BoKs, the WG concluded that the CartoBoK need to be a dynamic and maintained on a digital platform. It should not be a static document which can be cumbersome to update. It will be natural to use a kind of Web-based platform. The different ICA commissions will play an important role when it comes to the content of CartoBoK. Many cartographic elements are of common interest for several Commissions, while each of them also may have more specialized contributions for the BoK (Midtbø et al., 2021).

As an initial step, all the commissions of ICA were asked to contribute to CartoBoK with keywords in order to describe their “part” of the Cartographic activity in ICA. The list of keywords is accessible online at bok.cartography.no. The next step, which is an ongoing process, is to elaborate these keywords and organize them as concepts in CartoBoK. Central members of the commissions are invited to contribute with description of the concepts through a web-based form. This form is matching the information that can fit into the description of Cartographic concepts in the “Living Textbook” (Living Textbook, 2021). This is a web-based framework for storage and visualization of information. Each concept may contain information about definition, closer description, examples, how to use, synonyms, learning outcomes, other resources etc. The connections between different concepts are visualized in a Knowledge graph (Figure 1).

This abstract and corresponding presentation at ICC 2023 is prepared with the intention to inform the Cartographic community about the ongoing work in the WG, and to inspire members of the commissions to be engaged in the compilation of the CartoBoK where elements from the whole field are assembled.

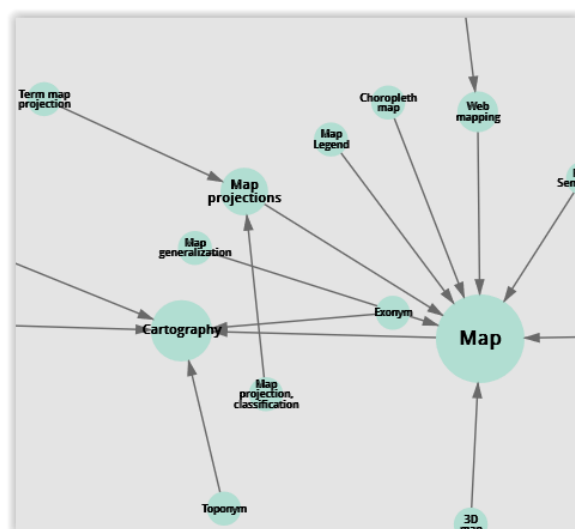


Figure 1: Part of the CartoBoK map (Web:CartoBoK)

References

- Fairbairn, D. (2018). Creating a Body of Knowledge for cartography. Proceedings of the ICA, 1, 1–5. <https://doi.org/10.5194/ica-proc-1-35-2018>
- GIS&T BoK (2016). GIS&T Body of Knowledge. <http://gistbok.ucgis.org/knowledge-area/cartography-and-visualization> (Accessed 13-01-2023)
- Lapaine M., Midtbø, T., Gartner, G., Bandrova, T., Wang, T., Shen J: Definition of the Map, Advances in Cartography and GIScience of the International Cartographic Association, 3, 2021. 30th International Cartographic Conference (ICC 2021), 14–18 December 2021, Florence, Italy. <https://doi.org/10.5194/ica-adv-3-9-2021>
- Living Textbook (2021). Universiteit Twente. <https://www.itc.nl/about-itc/organization/resources-facilities/living-textbook/> (Accessed 13-01-2023)
- Midtbø, T., Bandrova, T., Gartner, G., Lapaine, M., Shen, J., Voženílek, V., Wang, T. (2021). Establishing a Cartographic Body of Knowledge. Abstracts of the International Cartographic Association, 3, 2021. 30th International Cartographic Conference (ICC 2021), 14–18 December 2021, Florence, Italy. <https://doi.org/10.5194/ica-abs-3-208-2021>
- Moellering, H. (2019). Analytical Background for Developing a Body of Knowledge for Cartography. Proceedings of the ICA, 2, 1–4. <https://doi.org/10.5194/ica-proc-2-87-2019>
- Web:CartoBoK. Web page for CartoBoK Working Group at <https://bok.cartography.no> (05/05/2023).